

The University of Chicago

DEVELOPMENT AND
ECONOMIC ASPECTS OF THE LAWS
REGULATING INVESTMENTS OF
MUTUAL SAVINGS BANKS

A PART OF A DISSERTATION SUBMITTED TO
THE FACULTY OF THE DIVISION OF THE
SOCIAL SCIENCES IN CANDIDACY FOR THE
DEGREE OF DOCTOR OF PHILOSOPHY

DEPARTMENT OF ECONOMICS
DECEMBER, 1940

By
WESLEY CHARLES BALLAINE

CHICAGO, ILLINOIS

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The purpose of this paper is to investigate the evolution and consequences of the laws regulating the investments of mutual savings banks. This study is historical and analytical in nature, dealing with the economic rather than the administrative or legal aspects of the subject.

Although these laws merit attention because of their effect upon the quality of mutual savings bank assets, their particular attraction to an economist is that they have constituted an impediment to the competitive allocation of capital. Their interference with laissez-faire principles has been of two distinct types: in the first place, only a few investment outlets have been approved and this has resulted in a greater concentration of capital than would otherwise have occurred; secondly, there have been many preferences for local investments in order to hinder the exportation of capital to other states. These laws fall into two groups depending upon which type of interference predominates.

The topic covered by this paper is, accordingly, much broader in scope than an inquiry into the effects of the investment laws upon the safety of savings deposits. It becomes a study of a group of artificial restraints upon the mobility of a productive resource.

One hundred forty years ago many propertied people in Great Britain became interested in devising a means whereby workers' savings might be kept in absolute safety. This was really a manifestation of fear, for the French Revolution had exposed the danger of a discontented laboring class to the existing social structure. They recognized that this discontent sprang principally from abject poverty. The primary cause of this poverty was low income, but a secondary factor was the complete absence of institutions to care adequately for any surplus funds which thrifty laborers might accumulate.

Savings banking in its present form grew out of this search for a new agency. There had been organizations on the continent, particularly in Germany, which fostered savings by workers even before the French Revolution, but they could not properly be called banks. The institutions in which we are interested originated in the United Kingdom during the first quarter of the nineteenth century. They were developed by the clergy, especially of the established church, in an effort to assist the proletariat to improve its economic condition. The desire of the clergy to evolve a repository for the surplus funds of the workers was primarily philanthropic; however, the church had a vital self-interest in inculcating the habits of thrift and industry among the laboring class so that it might be relieved of the heavy financial load of caring for the poor.

Several paternalistic schemes to foster thrift were initiated under clerical auspices between 1798 and 1810, but in each of these cases saving was made attractive by bonuses from wealthy parishioners. The first real savings bank, the Ruthwell Parish Bank, opened May 10, 1810, and was devised by the Reverend Henry Duncan who was the minister for Ruthwell, Scotland. This parish was extremely poor and Dr. Duncan had tried numerous ways of improving the economic condition of his charges, most of whom were tenant farmers. One day he came across a pamphlet suggesting a bank in which the industrious poor could place their savings until needed and in this way they would be independent of the "be-grudged and degrading poor-law subsidies."¹

In the absence of wealthy parishioners Dr. Duncan was forced to organize his bank on the self-sustaining principle, its income to be derived from investments rather than gifts. It was this "revolutionary" self-sustaining principle that made the savings bank movement possible. Both the management and the business procedure of this first bank were exceedingly complicated.

The success of this bank created a great amount of public interest and by 1817 philanthropically minded people were organizing savings banks in all parts of the United Kingdom.

Prior to 1817 the British savings banks were voluntary associations and the managers possessed complete freedom in

¹Rev. John C. Duncan, Memoir of the Rev. Henry Duncan, D.D. (Edinburgh: William Oliphant and Sons, 1848), p. 96.

investing the deposits as far as the state was concerned. In 1817 Parliament provided for the incorporation of savings banks and imposed rigorous regulation upon them.

This law required all funds received by the bank, except for cash necessary for the conduct of routine operations, to be deposited with the Bank of England for the credit of the Commissioners for the Reduction of the National Debt.

Turning now to the United States, we find that the first savings banks established in the middle Atlantic states were located in the cities. Their primary purpose was to give the metropolitan proletariat a place of safety for surplus funds; there appears to have been little stress upon offering the poor an opportunity to participate in conservative investments which were otherwise unavailable to them.

The first savings bank in this country was the Philadelphia Saving Fund Society. This institution opened for business December 2, 1816, as a voluntary organization and was not incorporated by the Pennsylvania legislature until February 25, 1819. It proved so successful that a similar institution was organized in Baltimore by philanthropic citizens of that city.

The leading sponsor of the first savings bank in New York was Thomas Eddy, one of America's great philanthropists. The chartering of this institution, The Bank for Savings, encountered strong opposition in the legislature. The use of the word "bank" in the title apparently led many people to believe it was to be another bank of discount. There was strong feeling both in and out of the legislature against chartering more banks of discount for fear of currency debasement.

Savings banking in New England had a somewhat different flavor. This was partly due to the fact that many banks were organized in small communities and were patronized by a different social class than the metropolitan proletariat. Also, the pooling of savings was in harmony with the New England spirit of community co-operation and Yankee thrift. Whatever the reason, an important objective of the New England savings banks was to provide the poor with an opportunity to participate in desirable investments.

Within twenty years after the founding of the Philadelphia Saving Fund Society, savings banks had spread to most of the Atlantic seaboard states in which they are now concentrated. The

greatest growth in numbers was in New England, especially Massachusetts, and the greatest growth in deposits was in New York.

The growth of legal restrictions upon the investment activities of mutual savings banks has been an important phase of the development of these institutions. The history and economic implications of these laws constitute the major topic of this paper.

It will be recalled that prior to 1817 the managers of the British savings banks had complete freedom in the investment of deposits. Since 1817, however, they have been deprived of discretionary authority in the matter of investments and have been compelled by law to place their funds at interest with the government.

This drastic change in British policy also affected American laws in a way which can be detected to this day. The Provident Institution for Savings in Boston was patterned after the English institutions as they existed prior to the 1817 act. The management was, accordingly, given complete freedom in determining its investment policies. Later savings banks in New England were modeled upon the Provident Institution for Savings in Boston rather than upon the British banks as they existed after 1817. The investment policy of the Philadelphia Saving Fund Society before incorporation was somewhat ambiguous, but complete freedom from legal restriction was granted in its charter. We have already seen that the Savings Bank of Baltimore was copied after the Philadelphia Saving Fund Society, and so were the other savings banks in the region surrounding Philadelphia. In this way the policy of giving the management wide latitude in its investment policies became firmly established in these two regions.

The Bank for Savings in New York, on the other hand, was modeled upon the British institutions as they operated after the 1817 legislation. As a result, its investments were at first limited to bonds of the United States and New York State. The charters of other New York savings banks followed somewhat in the precedent established by the charter of the Bank for Savings. It later proved necessary to add other securities in order to provide a sufficient quantity to meet the growing needs of the savings banks. The policy of a restricted investment list has been tenaciously retained by New York, and to a lesser extent, by New Jersey.

In the states which followed the liberal tradition of permitting the savings banks wide latitude in their investment policies, the first important restrictions were geographical. The banks were allowed to invest their deposits much as they pleased as long as they did it within the state. As new forms of investment appeared, they were belatedly added to the approved fields but subject to geographical limitations.

The rapid growth of savings bank deposits resulted in attempts of local borrowers to secure a monopoly on this source of capital. At the same time, the banks were in need of wider powers in order to invest their increasing deposits while the depositors wanted the security of their funds assured. As a compromise, the legislatures permitted investments in out-of-state obligations only if they met more rigid tests than those applied to local investments. In many cases these tests were somewhat less severe when applied to securities originating in neighboring than in distant states. The more extreme preferences for local securities have been modified during the last twenty years.

In several of the New England states the addition of outside investments was accompanied by a tax upon them in order to make them unattractive. This, in some instances, has neutralized the tendency to a reduction in geographical preferences.

These investment tests have not been solely for the purpose of impeding the flow of capital to opportunities outside the state; they have also been applied to securities originating within the state in a genuine effort to improve the assets of savings banks.

The earliest legal restrictions merely listed particular fields in which savings banks might place their funds without specifying how choices should be made between alternative opportunities within these fields. As early as the 1850's some tests had appeared, particularly for real estate loans and railroad securities. The spectacular growth of savings banks during the Civil War decade led to much talk of legal enforcement of stricter investment policies, but little in the way of action occurred until there had been several large failures in the depression of the seventies.

During and immediately following this depression there was a marked development in legal tests of proper investments. This aspect of the savings bank laws led a New Hampshire bank com-

missioner to say: "Restriction is undoubtedly unnecessary with many boards of trustees, and so are the thou-shalt-nots of the ten commands of God to those who are wise and good enough without them."¹ The trend to legislative regulation was not a battle in the sense that it met with organized resistance on the part of the savings bankers. In fact, the savings bankers have appeared glad to let the legislators assume the responsibility for investment analysis, although they have often attempted to influence the legislators in their decisions.

By 1890 these tests were quite highly developed; this probably was a reason why "one of the gratifying features connected with the events of 1893, [was] the creditable manner in which the savings banks . . . passed through the trying times."² Evolution since that time has been largely a matter of increasing the detailed character of the laws and of attempting to prevent them from becoming too obsolete.

Since about 1900 the state savings bankers associations have been active in attempting to guide savings bank legislation. They have had two principal objectives in regard to investment laws. In the first place, they have been anxious to maintain high standards because most savings bankers have been uncritical in their security purchases and have relied upon the laws to provide sufficient safeguards. Under these conditions, a bank might easily fail if the legal list included a number of poor bonds. In the second place, the savings bankers wanted more extensive lists so that they could buy good bonds issued by many different kinds of borrowers. They were particularly anxious to avoid accepting a lower than the market rate of interest on their securities due to a narrow investment list because they wished to successfully compete with the rapidly increasing number of agencies which were also offering savings services to the public. In the terms of this paper, the savings bankers wanted to break down the impediments to the free mobility of capital.

Inevitably analytical criteria in legal form have lagged behind changing investment conditions; they have reflected past

¹New Hampshire Bank Commissioner's Report, 1883, p. 217.

²Commercial and Financial Chronicle, State and City Supplement, April, 1894, p. 5.

developments rather than present trends or future anticipations. Furthermore, even though the state banking departments and the savings bankers have often co-operated closely with the legislatures in preparing the laws, the tests have frequently contained unsuspected loopholes which permitted the inclusion of some poor risks while at the same time excluding some excellent ones.

In the last few years some of the states have made moves toward adding flexibility to their legal lists by permitting the supervising authority to make additions under certain limited conditions. So far these provisions have not been utilized sufficiently to change the basic rigidity of the laws, but it is possible that this may mark an important turning point.

The task of investigating empirically the effects of the various investment laws upon the form of assets acquired by mutual savings banks is fraught with difficulties. Although it is not possible to draw many conclusions by this approach the few generalizations which we can make will be of material aid in our analysis.

The banking departments of all the states which we have studied publish reasonably complete data concerning the operations of mutual savings banks under their supervision. Detailed information regarding the investments which the banks have made during the past seventy years or more is fairly complete except that Maryland and Delaware have not always provided sufficient itemization.

It might seem that an investigation of this material would enable us to estimate the extent to which the legal regulations have altered savings bank investment practice. This, however, is almost impossible to do with any degree of accuracy. If we study the investments held by the banks of a single state at a particular date we learn very little because we do not know what assets would have been acquired in the absence of legislation. Even when we compare practices before and after the application of a new investment regulation we are handicapped by lack of knowledge of exactly what changes would have occurred if this regulation had not been instituted.

In many kinds of scientific research it is possible to solve this difficulty by the use of a "control" which acts as a standard. It would, at first glance, appear that we could use the investment policies of the Maryland and Delaware banks as our con-

trol because they are subject to no investment restrictions. Then by ascertaining the deviations from this standard in other states, we would determine the effects of the investment laws. (This assumes fairly complete investment data for Maryland and Delaware. As a matter of fact the data for these two states are wholly inadequate for this purpose.)

There are several reasons why such a procedure is inapplicable to the present problem. For one thing, local investment opportunities may be entirely different in the state adopted for a standard than in the one which is being analyzed. Without making a careful study of this aspect of the problem, supposing that data for such a study are available, we would not know how to weight the various constituent elements of the control in order to adjust for these differences. Another difficulty is that the nature of the respective markets for local investment would have to be carefully studied so that proper allowances could be made for dissimilar competitive and institutional conditions. Again, if the depositors of one state use their accounts more actively than do those in another state, the investment needs of the banks will not be the same. The final difficulty to be mentioned here is that the choice of an investment program for an individual bank is largely the expression of one man's opinion. The present distribution of investments of a particular savings bank may be greatly affected by the personal views of its chief executive officer. Due to the interchange of ideas regarding policy, many savings bankers may hold the same biases. These views are not necessarily rational and it is not easy to segregate the irrational factors from the effects of the savings bank investment laws.

Despite all the difficulties involved in an analysis of the relationship between the investment laws and the investment practices of the savings banks, a statistical investigation shows that the investment laws do cause savings banks to adopt different investment policies than they would choose voluntarily. Such conclusions are, however, of a purely qualitative nature.

Now that the nature and evolution of savings bank investment laws have been examined, we can turn our attention to an investigation of their economic effects. Probably the most important arise from the fact that these laws have guided that part of the flow of savings which comes into the market through savings

banks into arbitrarily chosen forms of investment.

In order to evaluate the social results of this policy, it is necessary to have some idea of the most desirable distribution of savings among the various alternative forms of investment. By comparing this optimum allocation with the divergencies caused by the mutual savings bank investment laws, we should be in a position to draw some definite conclusions. For the purposes of comparison, we will assume that the distribution which would occur under conditions of perfect competition to be the most desirable. The reason for this choice of a standard is that perfect competition results in the maximum satisfaction of consumer wants under given conditions as to tastes and incomes. This proposition is easily demonstrated but to do so would constitute a lengthy digression and it is adequately dealt with elsewhere in economic literature.

In addition to ascertaining the mechanism by which new capital is allocated under perfect competition, we will also need to understand some of the essential features of capital theory. A knowledge of the characteristics of capital, how it is created, and the nature of interest are necessary tools for our analysis. "Capital . . . may be defined briefly as identical with wealth, but thought of in relation to the consumption stream of which it is the capitalized value."¹

According to this definition, capital is the lump sum sale value of a stream of services (income). The source of this stream of services is called a productive property or capital good when thought of individually, and as wealth when thought of in the aggregate. There is no necessity for a capital good to possess physical dimensions because it may be a particular skill rather than a machine. The value of capital is derived by capitalizing the flow of income at a rate of interest. The income which is capitalized is perpetual and uniform, all costs of upkeep, depreciation, and so forth, are deducted before determining the true income.

The productive power of capital, that is, the capital itself may be invested in an almost infinite number of forms. Any

¹F. H. Knight, "Capitalistic Production, Time and the Rate of Return," Economic Essays in Honor of Gustav Cassel (London: George Allen and Unwin, Ltd., 1933), p. 334.

individual investment is called a capital good or a productive property and is the source of the stream of services given off by the capital. Capital can be transferred from one particular capital good to another without loss of quantity. In such a metamorphosis the first capital good co-operates in the production of its successor. Capital is, therefore, distinct from the form in which it may, for the moment, be invested. In the long run there is fluidity between different forms of capital goods. The degree of this fluidity varies greatly and is dependent upon two factors: (1) the durability of the productive property in which the capital is currently invested, and (2) the length of time necessary to construct another capital good.

An investment belonging to an individual can be liquidated, as far as he is concerned, by sale to another person. The purchaser presumably would have made a new investment had he not bought one that was already in existence. Such a transfer obviously does not reduce the total stock of social capital. Historically, capital has been continuously increasing so that this transfer type of individual liquidation has always been possible. Thus the only situation under which capital would be disinvested for consumption would be in the event of general social liquidation. However, this latter type of liquidation probably couldn't proceed very far until essential links in our productive system would be consumed and then our economic organization would disintegrate.

The productive system of the modern world utilizes a huge stock of artificial resources, including human capacities. These capital goods constitute our store of wealth. From the viewpoint of production, capital goods are productive agents. All factors of production possess a common characteristic in that they are the source of a stream of scarce services.

There is one distinction which divides the productive factors into two groups: some can be sold, and some cannot. There is no point in determining the value of an agent which cannot be sold. This means that these latter are not wealth if we define wealth as capitalized services. A human being is the only productive agent which cannot be sold under our existing social order. We, accordingly, have two types of productive agents: (free) human and capital goods. The basis for this dichotomy is purely one of social institution. Under slavery a human would be purchased in order to secure his services and the investor would pro-

vide for the perpetuation of his capital by setting aside certain of the progeny. In this case a human would be a capital good.

Productive factors may be segregated into whatever classifications are most suitable to the purposes of the classifier. Later in this chapter we shall discuss those which are geographically mobile and those which are not, a distinction in which we will be interested. The most famous classification is that which was made by the English classical economists. They were especially interested in the distribution of the national income among the different social classes. Therefore, their classification was according to the social group which received the income. In the early nineteenth century land, labor, and capital supported, respectively, the upper, lower, and middle classes in England. The "capital" referred to in this classification, however, was considered to consist of a store of consumption goods and is not to be confused with the concept given in this chapter.

An entrepreneur selects the combination of productive factors which produces his commodity at the lowest pecuniary cost. He makes extensive use of those agents which are relatively plentiful (cheap) and economizes on those which are relatively scarce (expensive). His exact combination is such that the contribution of each factor is equal at the margin. The only characteristic of a productive factor in which an entrepreneur is interested is the suitability of its services to his productive organization. He would classify the factors he uses, or might use, into those which are competitive and those which are complementary. Entrepreneurs utilize particular forms of capital goods in accordance with the relative expense of their services.

The creation of additional capital is effected by means of saving. Saving is simply the production of more than is consumed. A person who consumes his entire income directs productive activity toward the creation of goods he consumes, but if he saves he secures a new capital good, or a claim to a part of the income produced by one, through his investment.

The real process of investment thus consists in the use of productive power by the saver or someone who borrows his savings (directly or through a bank or other institution as an intermediary) to create new productive wealth (capital goods) instead of using it to create goods for immediate consumption. The significance of capital goods is, of course,

to create before they wear out, more consumption goods than were sacrificed in constructing them.¹

The cost of production of freely reproducible capital goods can be ascertained in advance of construction. Likewise, their probable earnings can be foretold more or less accurately. Therefore, the relationship between the cost of production of capital goods at the margin and the annual earnings can be computed. This relationship is the rate of interest.

In common parlance the rate of interest is the annual payment of an agreed upon sum of money by the borrower to the lender for the use of the principal for a specified number of years with the repayment of the principal in money at the end of the period. Thus, it is a purely monetary relationship and appears to be quite different from the definition given in the preceding paragraph. Except for minor fluctuations, however, the pecuniary rate of interest is identical with the relationship between the cost of production of capital goods at the margin and the annual earnings which they produce. A little thought will show that this must be the case under perfect competition. An entrepreneur who borrows for the purpose of constructing a capital good will pay no more for the loan than the income he expects to receive from the capital good. The lender, on the other hand, will play one potential borrower against another, or will build the capital good himself, if he doesn't receive approximately the full income produced by the capital.

The contract between the borrower and the lender is in pecuniary terms. The value of this obligation is commonly referred to in the business world as "capital." This does not agree with our definition of capital. This is because the economic theorist is not interested in the contract itself, rather he is concerned with the capital good which the funds are used to construct. The terms "capital" and "interest" appear to have a different meaning when used by the economist than by the man in the street. This difference, however, is only superficial as basically the two usages refer to the same phenomena.

The law of diminishing returns applies to capital as well as to specialized factors, but the practically infinite number of

¹F. H. Knight, The Economic Organization (New Haven, Connecticut: The Yale Coöperative Corporation, 1934), p. 242.

possible forms in which capital can be invested causes the demand for it to be extremely elastic. Another way of stating this proposition is that new savings will be utilized to construct those particular capital goods which will produce the largest income. That is, additional increments to the stock of capital will be invested in those forms in which return is the highest. If it should happen that one form of productive property offered a higher income than others, all of the savings would be devoted to the construction of additional units of this particular type of capital good until the augmented supply caused the income differential to disappear. Under our assumption of perfect competition, and abstracting from any question of risk, the return will, therefore, be uniform in all parts of the economy. This uniformity applies both to the various forms in which investment may be made and to geographical location. Either allowance must be made for inter-regional and inter-employment transfer costs, or such costs must be assumed not to exist. In the absence of offsetting developments, a continued increase in the quantity of capital will result in the exhaustion of those opportunities providing a high rate of interest and necessitate investment in those yielding a lower income. Thus the interest rate will remain uniform in all the various alternative investment outlets and will also continuously decline.

Historically, the tendency of an increasing stock of capital to lower the rate of interest has been offset by social changes which have shifted the demand curve for capital to the right. In other words, apart from temporary fluctuations, increases or decreases in the interest rate have been caused by accumulation running behind or ahead of social changes. Since the flow of savings is small compared to the total body of capital, demand conditions determine the rate of interest at any particular point of time.

It is impossible to tell in exactly what form new savings will be invested. They may be used to change any form of our economic environment. Capital can alter our wants through advertising, technology through research and education, and resources by exploration and construction. Our whole economic framework is available as a field for capital investment.

If, in order to reduce somewhat the number of variables, we assume wants to remain unchanged, that is, not affected by either capital investment or social forces, we find that the pat-

tern of future investments is still too complex to be forecast. One of the reasons for this complexity is that we cannot tell what the relative intensity of wants will be under different circumstances or how they may be altered. The forces that direct productive activity are the wants of consumers and when we cannot predict what these will be in varying conditions we obviously cannot foretell changes in the productive process, and hence in the form of investments. These alterations in the relative intensity of wants are often due to the fact that a want of an individual which was previously unimportant may suddenly assume primary significance with only a slight change in his status. This is because some wants have a definite threshold; when an individual's income is below a given level he will make no attempt to satisfy a specific want, but above that level it will become important. Without knowing the location of these thresholds, we are in the dark as to the exact changes in the relative intensity of wants following, for example, a rise in the national income.

We will now attempt to move a little closer to reality by introducing into the situation forces somewhat similar to the mutual savings bank investment laws. We have already seen that these statutes have artificially directed the allocation of capital by two means. The first was the geographical restriction so prevalent in the New England legislation, and the second was the limitation of investments to those of a very limited number of types, a technique well illustrated by New York. Although the investment laws enacted by the various mutual savings bank states contain both these restraints on the mobility of capital, they will be discussed as though they were completely distinct phenomena.

We have been assuming perfect competition which involved the mobility of all factors including capital. Let us now modify this by supposing that a part of the new savings of the economy are guided by artificial means, such as some kind of legal restraint, into only a few of the infinite number of alternatives previously available for investment. This means that whereas we have hitherto assumed conditions under which new capital is distributed among its various possible uses so that its marginal productivity remains equal in each, we will now narrowly circumscribe the field within which a part of the new savings may be invested.

It is necessary to make two qualifications to insure that the effects of this change in our basic assumption will not be neutralized. In the first place, the proportion of savings affected by the restrictions must be substantial enough to result in an appreciable distortion in the allocation of new capital. Secondly, the bulk of the existing stock of capital must be invested in a form sufficiently permanent and specialized so that re-investment will not completely offset the results of our new assumption. The consequence of this will be that the marginal productivity of new capital within the favored field will decline perceptibly with an increase in supply. Except for the modifications which we have given in these last few paragraphs, we will retain all the other elements of perfect competition.

We will first analyze the effects of arbitrarily guiding a part of the flow of new savings into the construction of a limited number of kinds of capital goods. These approved investments may be made in any geographical section of the economy. In other words, we are limiting the form in which new capital may be invested, but we are placing no restrictions on geographical mobility.

Our assumptions will result in more capital flowing into this narrow field than would otherwise have occurred under perfect competition. The income produced by the new capital goods will, ceteris paribus, be continuously lower with each additional increment to the total and it will also decrease more rapidly than the income produced by new capital goods of other types. Within this narrow field of approved investments, the new capital will be allocated among the few alternatives in such proportions that the marginal productivity in each remains equal.

From the entrepreneur's point of view, the services of these particular capital goods will become cheaper than would have been the case had the restraints not been in effect. Entrepreneurs who can use these particular types of capital goods will reorganize their combination of factors in order to utilize them more extensively. This reduction in the cost of production will result in a lower price for the commodities produced. A lower price will be accompanied by an expansion of the industries to produce the increased output.

The marginal productivity of the other factors used by these industries will rise at first. This will mean some tendency

of other factors to move into these industries in order to secure the higher income, but this migration will cause the differential to disappear.

The effects on the remainder of the economy will be the reverse. In particular, the rate of interest will be higher than within the field receiving the artificially large flow of savings. Since costs are relatively higher, the industries not using the type of capital goods whose supply is being increased, will tend to contract.

The welfare effects of interference with competitive allocation of productive agents are, after all, the only ones in which we are particularly interested. Under perfect competition factors of production are allocated among their various possible uses in such a way that they produce that combination of products which satisfies the greatest volume of consumer wants. We are here assuming a situation in which there is not complete mobility of factors so that more of some forms of capital goods, and less of others, have been constructed than would have occurred under perfect competition. This interference in the allocation of capital results in more of some kinds of consumer goods being produced, and less of others, than if capital had been invested under perfectly competitive conditions. Our assumption of interference in the allocation of a part of the stream of new savings has resulted in the production of more commodities which are desired less intensely, and fewer of those which are wanted more intensely than if capital had been invested in such a way that the yield in all alternative uses was the same. It follows that a loss of satisfaction must be suffered by the community.

Another important problem is the determination of who suffers the loss in income due to the lower rate of interest prevailing in the narrow field of approved investments. If it should happen that one group, such as laborers, supplies the savings which are diverted to those forms of capital goods whose marginal productivity is rendered artificially low, the loss in income is concentrated. Conversely, those groups supplying capital to be invested in the fields characterized by a higher interest rate will receive a slight increase in income.

We will now assume that most of the savings are accumulated by the inhabitants of a small geographical section of the economy. Under perfect competition, capital would be exported

from this area and would be allocated among its various possible uses in other sections of the economy in such amounts that the productivity of an additional increment would be the same in each. In discussing the geographical distribution of new capital, we are tacitly presuming that some productive agents are relatively immobile; if this were not so, there would be a smaller export of capital and a marked import of other factors. With certain agents, such as natural resources, being relatively immobile, we can conceive of a unique geographical distribution of factors which will produce goods yielding the maximum want satisfaction.

For the sake of convenience, we will call the area that saves A and the rest of the economy B. It must be understood that A is only a political subdivision in an area characterized by perfect competition except for our assumptions to the contrary.

The export of capital will occur in the form of capital goods. That is, A may produce machines which are transported to that point in B in which their productivity is the highest. Capital may also be exported in the form of engineers, scientists, and so forth, who have been given technical training in A, but whose skill has greater productivity at some location in B than in A. We have already seen that capital may be invested in an almost infinite number of forms, and most of these can be exported. The exact form will depend upon the type of capital good which is most productive, that is, has the highest earnings, in B.

As capital leaves A, it tends to lower the productivity of the other factors in A (they become relatively more abundant), and to raise the productivity of the other factors in B (they become relatively more scarce). This will lead to a migration of other factors from A to B. Thus the export of capital is likely to be accompanied by an emigration of labor.

The export of capital from A, and the resultant emigration of other agents, will likewise tend to lower the marginal productivity of geographically immobile factors in A. In fact, any geographical redistribution of other factors will probably affect the productivity of those that are immobile. It follows that the marginal productivity of the immobile factors will almost certainly not be uniform in their different uses.

Let us now make a further change in our assumptions. We will suppose that a new law is enacted which requires a substantial part of the savings accumulated in A to be invested there.

Our problem is to analyze the results of geographically allocating new capital in an arbitrarily chosen manner.

The effects of this diversion of savings are analogous to those which were discussed in our previous analysis. The interest rate will be lower in A than in B. Those industries in A which can advantageously utilize additional capital goods will reorganize their technique so that their costs are reduced as much as possible. This will result in an industrial expansion in A. In B, on the other hand, the services of capital goods will be relatively expensive which will restrict industrial expansion, ceteris paribus.

The increase in capital within A will raise the marginal productivity of other factors in that area. The result of this will be a tendency of other factors, especially labor, to migrate until their marginal productivity is again equal throughout the economy.

The geographical immobile factors in A will be in a peculiarly profitable position. Their productivity will be increased and this increase will not be decreased later by the emigration of similar factors from B.

If our objective were to maximize production in A rather than in A and B together, it is true that the stock of capital within A should be as large as possible. Whether placing an embargo on the export of capital from A will increase this supply depends upon several circumstances. We can easily imagine a situation in which the saving in A is done exclusively by people who receive their income from interest. If the interest rate in A becomes very low, due to the accumulation of capital, they will be unable to save as extensively as formerly. In this case the embargo has partly failed in its purpose. If, later, people in A can again invest in B, the income from interest will be much higher and there will be increased saving in A. However, if the saving comes from the earnings of labor, the embargo on the export of capital may actually increase the volume of savings because additional capital will increase the productivity of labor.

From the point of view of the economy as a whole, it is certain that the productive system yields less want satisfaction when a substantial part of the savings can be invested only in A.

We will now attempt, as realistically as possible to deal with the economic consequences of guiding savings bank investments

into different channels than would have been chosen had the forces of competition not been partly blocked. The greatest difficulty in doing this is that the laws of the various states differ both in historical development and in actual content. In order to draw conclusions regarding the mutual savings bank investment laws as a group, we must minimize their minor differences. Even after doing this we must effect still further compromises with our desire to be realistic if the subject is to be kept within bounds narrow enough to permit us to focus our attention only on its more important aspects. This necessitates the imposition of several simplifying assumptions. These will greatly facilitate our analysis, but they will not depart so far from reality that the validity of our conclusions will be endangered.

We will consider, accordingly, that we are dealing with a set of laws which, in part, have been statements of prudent investment practice. However, an additional characteristic has been the presence of restrictions which have caused the savings banks to apportion the capital reaching the market through them among the various existing opportunities differently than would have been the case under perfectly competitive conditions. We are interested, at this point, only in this latter feature of savings bank laws.

These restrictions have been of two types. The first has been a limitation upon investment to municipal bonds, railroad bonds, and real estate mortgage loans. The second is a restriction to the location of the investment, but not to its form. The result of both of these has been to lower the rate of interest in the fields in which savings banks are permitted to invest as compared to the remainder of the economy.

The savings banks have received their deposits from the lower income groups. Thus, income from profits or interest has not found its way to the savings banks.

Finally, our discussion will not be quantitative. Instead, it will be an a priori analysis of the tendencies which may reasonably be imputed to the existence of these restrictions.

Turning now to the narrow list, we will first discuss real estate mortgage loans. It will be assumed that they are secured solely by mortgages upon urban property. Loans upon agricultural land will be completely disregarded. This is because agricultural loans have been a relatively unimportant asset for several dec-

ades; during the eighties and early nineties, however, they constituted an important investment outlet in some states. Also, it will be presumed here that either the property involved is already "improved" or the proceeds of the loans are used for this purpose. The term improved is understood to mean the construction of residences, apartments, office buildings, and so forth.

We have previously seen that a narrow investment list causes a larger proportion of savings bank assets to be invested in real estate mortgage loans than would be the case if the banks were free to choose the investments which they considered best suited to their needs. The lower interest rate for real estate mortgage loans will result in an increase in their volume. The way in which this occurs is through a change in the cost of construction. The interest upon borrowed money is a substantial proportion of the cost of a new residence or building. A slight reduction in the interest rate of the loan may, therefore, mean a material reduction in the cost and this will stimulate the quantity of new construction. It would appear from observation that the demand is very elastic.

The fillip given to residential building by the lower rate of interest incident to mortgage loans insured by the Federal Housing Administration constitutes an adequate demonstration of this point. It also seems probable that interest rates on construction loans were below their true competitive level for a decade following 1918. During this period there was a huge building boom. Had the interest rate been higher during those years, less construction would have been undertaken and the subsequent reaction would have been less severe. No doubt the savings bank laws were an important factor in lowering the rate of interest on this particular kind of loan during these years.

It should be pointed out, however, that the stimulating effect of the artificially lower interest rates has been partly dissipated by the rise of monopolies in the construction industry in the last two decades. It seems probable that the interest rate on mortgage loans is itself inclined to rigidity. Over a comparatively short period of time the banks probably lend on mortgages all that will be taken at the particular rate of interest then prevailing. The balance is invested in securities, perhaps largely short-term, which will be liquidated if more mortgage loans can later be obtained at the same rate of interest.

Only after a considerable period of time will the interest rate be lowered in order to increase the quantity of such loans. This means that the effect of a narrow list upon real estate mortgage loans is a long-run factor.

The second effect of a rate of interest upon real estate loans which is lower than that which would prevail under freely competitive conditions is to temporarily strengthen the price of real estate. The reason why this is only temporary is that the higher price for buildings, houses, apartments, and so forth, will stimulate the construction of additional units until the price again declines to its former level. Now that loans have been made at an artificially low rate of interest the savings banks themselves may not wish a very rapid correction. If the rate of interest should rise, ceteris paribus, the sale value of income-producing real estate would decline. If this decline were sufficient, the safety of the principal on outstanding loans might become imperilled. Perhaps an even greater danger to the safety of the outstanding loans would be competition in the construction industry.

The opinion that a narrow investment list for savings banks results in a lower interest rate for municipal securities is strongly held by the municipalities themselves. They have, on numerous occasions, fought desperately against any enlargement of the New York list on the ground that such action would prejudice their preferred position.

It is difficult to tell in just what directions state and municipal activity has been extended by cheaper credit. Adequate data on total municipal indebtedness are sadly lacking and little information on the subject is available prior to 1900. The principal purposes for which bonds have been floated are largely for construction streets, school buildings, and so forth.

One interesting effect of the lower interest rate for municipal bonds has been that it has facilitated the extension of the municipal ownership of public utilities. Often the obligations issued by publicly owned utilities are secured only by the revenues of the agency and not by taxing power. Such bonds are not as widely approved for savings bank investment as are general obligation bonds.

The mutual savings banks were not an important source of capital for the railroads until after our transportation system

had passed its formative period. This period ended, approximately, with the panic of 1893. Prior to that time the railroads obtained the largest part of their funds from English and Dutch capitalists, particularly the former. American participation in railroad financing increased with the growing wealth of the country so that during the last third of the nineteenth century the eastern section of the United States advanced a considerable amount of capital for the construction of the transcontinentals. To a minor extent the savings banks located in states in which it was legally possible to do so took part in this activity.

The financing of railroads in New England appears to have been somewhat different than that prevailing in the rest of the country. The railroads in this section were built by local capital to a larger extent than elsewhere. This was true both because of the greater amount of capital available for investment, and also because the original costs of construction were not great in comparison with the traffic that was developed due to the short distances.

The savings banks contributed more to the construction of the early railroads than appears from a statement of the railroad securities which they held at a particular date. This is explained by the fact that municipalities, in order to insure themselves of railroad connections, would issue their own obligations to secure money with which to purchase railroad securities otherwise not salable. When a savings bank bought such a bond it was carried as a municipal rather than as a railroad security. In this connection it may be pointed out that in 1869 New York banks were permitted to acquire these so-called "town railroad" bonds if they were issued by municipalities located within the state, but they were not allowed to buy bonds issued directly by railroad corporations until nearly thirty years later.

Following the turn of the century the savings banks became important sources of capital for the railroads. Only a fraction of total volume of railroad securities were eligible for purchase by the savings banks due to the provisions of the investment laws. Just how large this fraction was at different times is impossible to ascertain because one bond might be an approved investment in six states but not in the others. Nor is the aggregate volume of railroad securities held by the savings banks at various periods easily determined because the banking reports

of many states included other types of securities with them.

From the available data it is clear, however, that the proportion of railroad securities held by mutual savings banks increased rapidly after 1900. That is, even though the volume of railroad securities grew, the holdings of the mutual savings banks grew even more rapidly until 1931 when they held \$1,540,000,000 of railroad bonds. This amounted to approximately 15 per cent of the total railroad bonds, but a much higher proportion of those which were approved investments.

The addition of a large number of railroad securities to the legal lists about 1900 had several effects upon the railroads. From a long range social point of view, the most important was that a depressed interest rate diverted to the railroad industry resources that would have created a greater amount of want satisfaction in other uses. Another way of stating this point is that our railroad facilities were increased beyond the point where development would have stopped had the investment of capital been more competitive. It is impossible to say in exactly what forms this additional development took place, or what was its total volume. Without doubt, however, this increase in railroad plant is an important cause of the current financial difficulties in which the railroads find themselves.

A more tangible effect, and one which has seriously interfered with the smooth operations of our institutional organization has been that of increasing the ratio of bonds to stock in the capital structure of railroads. The savings bank laws generally only approved the purchase of debts. It follows that the only way a railroad could secure capital from savings banks was to issue fixed interest obligations secured by first mortgage on the railroad's assets.

As far as any individual corporation is concerned, the maximum ratio of debt to total capital which is "safe" from the point of view of maintaining solvency, is primarily dependent upon the amplitude of earning fluctuations and the level of average earnings in relation to fixed charges. Thus if the "new era" belief that business cycles were no longer an important disturbing influence had proven correct, a much higher proportion of debt might be tolerated.

The result of a capital structure top-heavy with fixed interest debt in a period of severe depression does not need to be

emphasized here. There has been a trend for the past few years toward an increase in the proportion of stock. This has been partly enforced upon the railroads because they find it extremely difficult to refund maturing bond issues and are forced to pay them off, if they can. The Interstate Commerce Commission is requiring sinking funds for new bond issues of solvent railroads and is drastically reducing the indebtedness of roads which are being reorganized. Other governmental agencies are also interested in the problem.

A further effect of the savings bank investment laws upon the financial position of the railroad industry has sprung from the common provision that dividends of a certain rate must be paid on the stock of the corporation in order that its bonds may remain on the legal list. This requirement originated before earning statements were as common or uniform as they are today. It was apparently assumed by the men who framed these laws that dividends are declared only out of current earnings. If this were so, then the dividend record of a corporation would provide a comparatively simple index as to its earning power. In actual practice this has not been the case. The railroads felt that they had to pay dividends whether they were earned or not in order to keep their bonds on the legal list. This led to the paradoxical practice of railroads frequently paying currently unearned dividends out of slender cash reserves, thereby seriously weakening their financial condition, for the purpose of preserving their credit. If dividends were reduced or passed during a depression, the bonds of the railroad might be removed from the legal list and it would require several years of prosperity before they could qualify again.

The investment laws may, in the near future, have another effect upon the railroad industry. It seems probable that they will restrain further investment of new capital by savings banks from entering this industry for several years. This may mean that railroads will be forced to pay a rate of interest higher than that which would prevail under a more competitive investment procedure. Such a condition would mean that less capital would be placed in the industry than would be socially desirable.

The cause for this possible development lies in the provisions of the investment laws requiring earnings or dividends to be maintained at a stipulated rate for several years. Most railroad securities would have been stricken from the legal lists

early in the depression following 1929 had it not been for legislation by many states which waived earning or dividend requirements. The purpose of these moratoria has been to permit the slow liquidation of these bonds rather than force their immediate sale on a depressed market. Thus the laws were designed to aid the banks and not the railroads. During the last two years there has been a trend to re-establish the former requirements. This may mean that a period of several years will elapse during which railroad bonds are ineligible despite the fact that their current earnings may be satisfactory.

In the past decade there have been a very large number of technological improvements in the industry which are capable of sharply reducing operating costs. Another way of stating this is that capital invested in acquiring these improved capital goods will yield a relatively high income. Due to the imposition of a period of several years during which the railroad is establishing its credit, there may be a considerable lag during which much less capital will enter the railroad industry than would have been the case had the allocation of capital been carried out under perfectly competitive conditions.

Furthermore, it may be that the investments which the savings banks already have made can be retrieved only by extensive utilization of technological improvements. But the utilization of these improvements requires access to available capital, a portion of the normal supply of which is temporarily cut off by this lag.

The favored fields of state and local governments, railroads, and real estate have received more capital than they would have in the absence of those investment laws characterized by a narrow list. Obviously, other fields suffered by being deprived of the capital which they would otherwise have received. Moreover, the want satisfaction produced by the diverted capital in the fields of state and local governments, railroads, and real estate is less than it would have been had it not been diverted.

It is difficult to determine which fields of investment have received less capital because of a narrow list. Those banks not subject to the restrictions of a narrow list secure a wide variety of different kinds of investments. In other words, a narrow list withholds a small amount of capital from a large number of fields and concentrates it into the three approved channels.

Thus the results are concentrated gains and widely dispersed losses. The effects of the gains are more discernible than are those of the losses.

It seems indisputable that a narrow list will tend to lower the income received by the depositors of mutual savings banks. The point to be discussed here is whether or not a lower rate of interest in three fields will cause an increase in wages or a decrease in the cost of living which will offset the loss of income as depositors.

The existence of mutual savings banks undoubtedly results in the saving of funds which would otherwise be consumed. Thus the laboring classes may have a slight influence upon raising their real wages by increasing the proportion of capital to labor. This, however, is not the subject under discussion. What we want to know is whether a narrow list will change labor's income. There is no reason to believe that lower rates of interest in three particular fields will noticeably increase savings, thereby making labor scarce relative to capital. If this should occur real wages would, of course, be increased. The only possible effect of this nature is that, for a time, profits in real estate and railroads might be higher than elsewhere due to cheaper credit. If profits were substantially increased by this means, the wealthier groups in the community would have larger incomes and might, accordingly, save more. The amount of their saving would be approximately the same as the loss of income to depositors of mutual savings banks; that is, it would simply be a transfer of income from a class of society who would consume it to one which would save it.

A second possible offset is in the reduction of living costs. It is possible that lower rates on real estate loans may stimulate construction sufficiently so that rents on the type of property occupied by mutual savings bank depositors will decline perceptibly. This seems doubtful because mutual savings banks lend on all kind of property and the reduction in rent is distributed so widely among the population that the individuals who have savings accounts appear to have little opportunity of securing sufficiently lower rents to make up for their reduced interest income. The lower rate at which municipalities can borrow results in either lower taxes or increased public services, in all probability the latter. The provision of better school buildings, parks, hospitals, and so forth, might come closest to creating an

offset.

We may conclude that the lower dividends paid by those mutual savings banks which are restricted to a narrow list of investments is borne directly by the depositors and that there is little likelihood that this loss can be recouped by higher wages or lower living costs resulting from the narrow list.

The second form of interference in the allocation of capital is that provided by savings bank investment laws which are characterized by financial protectionism. There are numerous other impediments to the flow of capital between the various states of the United States, yet despite the fact that they must, in the aggregate, have quantitatively important results, there appears to be no adequate discussion in the professional literature of their economic and social effects. In the absence of discussions which are directly pertinent to our subject, we will be forced to investigate economic thought regarding somewhat similar developments elsewhere.

The advisability of retaining capital in the region in which it was accumulated has been analyzed only when using a nation as the unit. That is, writers have assumed complete mobility of capital within the country so that they could deal solely with the effects of restricting its flow across the national boundary. However, if the boundaries of political subdivisions within a country become significant impediments in the free conduct of economic transactions, the areas encompassed by these significant boundaries become nations from an economist's viewpoint. We have seen that state borders have, in many instances, become important impediments in the freely competitive investment of capital accumulated in mutual savings banks. Therefore, conclusions regarding the effects of restricting the flow of capital between nations may, in part, be relevant to similar restrictions between states.

There was little discussion on the subject of capital flows before the opening of the nineteenth century although foreign investments were not unknown; the Dutch, in particular, had been a creditor nation for a long period of time. International capital movements were first made an object of study by the English classical economists. The development of the literature in Britain is easily explained. There was already a substantial body of economic thought in England at the close of the Napoleonic Wars which marked the beginning of a century of export of British capi-

tal. Thus there were careful observers who could analyze the phenomena with trained minds. Subsequent discussion has been principally confined to English, American, French, and Swedish writers, who have all, more or less closely, followed in their footsteps.

The classical economists viewed governmental attempts to restrict the export of capital as a violation of the laissez-faire principle. They believed that the importance of political boundaries should be minimized to such an extent that they would cease to be economic factors. In other words, the laissez-faire principle should apply with equal validity to those economic transactions which are international in character and to those which are of a purely domestic nature.

More specifically, the implications of this principle were somewhat as follows. The national interest, always assumed to be that of England, could not be at substantial variance with a more cosmopolitan interest. That is, there could be no substantial conflict between the national and international welfare. Therefore, a national policy designed to diminish the economic importance of a country's frontiers was advantageous for purely selfish reasons. In those few instances where there was not complete harmony between the national and international welfare, the national interest should be the one sacrificed. This was not due to any lack of patriotism on the part of the classical economists. It was, instead, a reflection of the belief that governmental interference is not adapted to protecting the country's economic welfare and that such interference would merely incite reprisals.

The free trade principle, when applied to the problem we are studying, holds that capital should move as freely across national frontiers as it does within the nation's boundaries. This has not been the course followed by the men in charge of the political policies of any important country. Viner has shown that the governments of all nations which have exported large amounts of capital have had serious misgivings as to the wisdom of this act.¹ This was true even of the British government during the heyday of British foreign investment; although little was done to actively impede the export of British capital, there was no aid to the movement and considerable passive resistance. In addition to

¹Jacob Viner, "Political Aspects of International Finance," Journal of Business, April, 1938, pp. 144-46.

the impediments upon the export of capital, there have been restrictions on its import by nations which would otherwise be desirable fields of investment. These latter restrictions are for the most part recent developments and are, practically, the opposite of financial protectionism.

It is interesting to note that the classical economists did not attack impediments to the export of capital from England as vigorously as might be supposed. Although outright governmental hindrances were opposed as a matter of principle, many of the nineteenth century British economists hoped that other factors would intervene and accomplish the same end. For example, Ricardo observed that the reluctance of men to entrust either themselves or their property to a strange government constituted a check upon the emigration of capital. It would seem reasonable to expect him to condemn this attitude in so far as it was an irrational action. The truth is quite the contrary:

These feelings, which I should be very sorry to see weakened, induce most men of property to be satisfied with a low rate of profits in their own country, rather than seek a more advantageous employment for their wealth in foreign nations.¹

There is, however, a social objection to the export of capital which is valid from an economic point of view under certain circumstances. This objection is that foreign investment tends to increase the unequal distribution of the national dividend. This occurs because the increase in the national income accrues to a single economic class in the community, the capitalists. The share of the national income received by this group is already undesirably large without augmenting it. Foreign investments would tend to increase the income of those who supply capital in two ways. In the first place they would obtain a higher rate of interest on their investments made abroad, and in the second place, the domestic interest rate would rise due to the decrease in the funds available for investment. An alternative way of presenting this alteration in the distributive shares is to view the export of capital as causing other factors of production to become more plentiful in comparison to capital. This reduces the income of the other factors. This lower income may be the

¹David Ricardo, The Principles of Political Economy and Taxation (Everyman's ed.; New York: E. P. Dutton and Co., Inc., 1911), p. 83.

result of a reduction in the income of each unit and no change in the total number employed, or a reduction in employment with no change in the money income of each of the fewer number of units which remains employed. Thus, an export of capital might cause unemployment in such industries as housing because they are characterized by rigid costs; in this case a higher interest rate would not soon result in a reduction in the money costs of other factors.

John Stuart Mill in his Principles, points out a result of foreign investment which partly offsets the tendency toward lower wages. He states that it often leads to lower living costs for labor, thereby increasing real wages. "It is to the emigration of English capital, that we have chiefly to look for keeping up a supply of cheap food and cheap materials in clothing proportionate to the increase of our population."¹ Thus foreign investment may raise incomes of the capitalists and lower living costs of the workers simultaneously.

The classical economists generally glossed over business cycles, rigid prices, and other causes of under-employment of resources by tacitly assuming full employment. In recent years a good many economists who otherwise subscribe to the free trade principle, nevertheless have questioned the desirability of exporting capital under conditions of large scale unemployment.

The basis of their opposition to capital export under these conditions is that domestic investment provides a substantial amount of secondary, or subsequent, employment which does not exist in the case of a foreign investment. The actual export of capital takes the form of shipping out a capital good and the employment of resources for the construction of this capital good is obviously the same whether it is to be used at home or abroad. However, if it remains at home, it will require someone to operate it and keep it up, thereby providing employment which would not exist if the capital good had been sent to another country. Furthermore, the gain in income to the men employed in the operation and maintenance of the capital good at home will probably exceed the loss of income to the capitalist incurred by his inability to export the capital good to a country where its income would be

¹ John Stuart Mill, Principles of Political Economy (Ashley ed.; London: Longmans, Green, and Co., 1909), p. 739.

higher. Thus, some economists claim that if there is unemployment, the restriction on the export of capital actually increases national income. Persistent unemployment indicates rigid prices; therefore, this argument is valid only on the assumption that it is either impossible or undesirable to attack rigid prices directly.

The retention of capital has always appeared logical to the general public partly because it is assumed that it would provide more jobs. In this connection it should be remembered that many of the arguments advanced favoring a policy of financial protectionism for savings bank investments implied the existence of unemployed resources, particularly of labor.

Our object is to apply as many of the conclusions regarding nations to states as is appropriate. A prerequisite for this is an analysis of the economic similarities and dissimilarities between American states and nations. We are not at all interested in political relationships in this paper, our sole interest in a comparison of states and nations being to determine whether or not a state boundary has the same economic effect as a national frontier.

We know that constitutionally the United States is supposed to be a vast free trade area in which state lines are as unimportant economically as any classical economist could have desired. There are no monetary problems which are directly incident to state borders (except that differences in reserve requirements of state banks may cause certain monetary disturbances). The free trade principle has been applied particularly to goods having physical dimensions, that is, to transactions which are strictly analogous to import and export transactions in foreign commerce. Even here we have become acutely conscious of a rapid disintegration which neither the courts nor Congress seem willing to stop. Yet it is generally agreed that state trade barriers are opposed to the spirit of the constitution, if not its actual provisions. The dangers of this trend are coming to be more widely appreciated and it may not be too optimistic to anticipate their elimination in the near future. We will, therefore, assume commodity trade barriers to be a transient phenomenon and ignore them.

State boundaries have proved to be much more important barriers to capital movements. There are many of these barriers that have been in force for a long time and they are not generally

considered to be contrary to the spirit of free trade among the states. This is the result of an unjustifiably narrow interpretation of the free trade principle, if not of the interstate commerce clause itself.

There certainly is no need for argument in this paper in support of the assertion that any conflict of interest between one state and the others should be settled in such a way that the welfare of the largest number of people is protected without regard to state lines. We wish to maximize production for the entire nation and not for particular states. Any strengthening of state boundaries as economic factors obviously weakens the United States as a whole. One of our most pressing economic and political problems is that of reducing or abolishing the economic significance of states. Since the economic importance of state boundaries has probably been limited to movements of capital until recent years, it follows that financial protectionism constitutes an old but unrecognized economic problem in regard to inter-state relations.

It should be pointed out that one reason why states have adopted financial protectionism is that they have been given responsibilities which are essentially national in character. For example, until 1933 relief was considered to be solely a state or local problem. It is, of course, a national problem which should be dealt with on a national scale by the federal government. Yet when states in which a large volume of saving occurred were left with the problem of dealing with unemployment their attempt to increase business activity within their boundaries by a "cheap money" policy of financial protectionism was not completely irrational.

We know that the economic welfare of the United States will suffer if certain of the states encourage investment within their borders when this capital would be more productive elsewhere. Therefore, this subject will not be discussed. We will now limit our interest to the welfare of the state which adopts a policy of financial protectionism. Such a policy will not affect all economic classes in the state equally.

The particular group in which we are most interested is the depositors of the mutual savings banks. It will be recalled that we are assuming the depositors to be drawn from the lower income groups. That probably means that their primary source of income is from the sale of their labor. Accordingly, we will pre-

sume that the interests of the mutual savings bank depositors are the same as those of what we so loosely classify as "labor."

The general effects of a policy of financial protectionism upon distributive shares are that the retention of capital within the state results in lower interest rates and a tendency to higher wages. This tendency to higher wages may be offset, however, if there is a sufficient increase in the supply of labor. It is generally agreed that in a closed economy the long-run labor supply curve is negatively inclined, at least for a part of its length, which means that higher wages diminishes the supply of labor. In the case in which we are studying we do not have a closed economy. Labor moves comparatively freely across state lines; only a very small proportion of labor actually needs to move in order to equalize differences in marginal productivity between two districts. We may, therefore, conclude that any tendency to increase wages will be neutralized by an addition to the labor force. Thus, the tendency toward higher wages will not mean a larger income for savings bank depositors. Their wages will remain much the same and their interest income will be lower.

If wages are so very rigid that the major part of the adjustments are made through altering the volume of employment, the reasoning remains much the same. Under these circumstances a reduction in the rate of interest will lower costs, thereby increasing production. This will entail additional employment of labor, but, by hypothesis, will not change the wage rate. If underemployment is general, an increase in employment in one particular geographical area will attract laborers even though there is no change in the wage rate. This influx of labor will occur long before a state of full employment has been attained. Thus, the new jobs which resulted from a lower rate of interest will be divided between the unemployed laborers within the state and the unemployed who have been attracted from outside the state. Therefore, the sacrifice made by the depositors in accepting a lower rate of interest will not yield them a monopoly on the additional opportunities.

In several instances the argument was advanced that jobs for the youth of the state would result from the retention of capital at home. The migration of the young people to the large cities was considered anti-social. Financial protection would not be very effective in securing this end because the additional

jobs might be snatched by people from outside the state.

An export of capital may mean developing processes which lower the cost of living to labor remaining in the state. The investments of the Connecticut mutual savings banks in western farm mortgages during the seventies of the last century tended to reduce the cost of food to the depositors (and others) by placing more efficient agricultural areas under production. Thus in Connecticut where there was little financial protectionism enforced, the depositors received a higher rate of interest at the same time that they were co-operating in the reduction of their living costs.

Obviously, no factor of production can benefit by the lower interest rate if the increase in its marginal productivity is going to be neutralized by an influx of other units from outside the state. The only group which receives long-run benefits are the owners of geographically immobile factors. As a practical matter it is difficult to segregate particular people and say that they are the beneficiaries of lower interest rates because the factors which they control may be geographically immobile to only a limited extent. However, we can give an indication of some of these factors. The way they benefit is by a growth of production and population relative to the class of factor which they control. They see a lower interest rate causing an influx of population because of the higher wage level. The larger population will soon drive down wages, but the geographically immobile factors will be much more scarce relatively than before. Geographical location is largely immobile although capital may be expended upon making an inaccessible site accessible. In general, that part of the price of land which is due to its geographical location, as distinguished from fertility or some other characteristic, will rise in price. This is usually more noticeable in regard to urban sites than agricultural land. Transportation routes are usually immobile and an increase in population and production will bring a much higher income to their owners.

In addition to these particular factors which are geographically immobile in a strict interpretation of the term, there are business units which are able to expand their monopolistic position as the community grows. These are firms dependent upon the local market, but which are limited by its smallness to the upper reaches of their long-run U shaped cost-curve. As the mar-

ket grows, the firm is able to expand so that it operates at a lower point on its cost curve. This will enable it to effectively eliminate competition while at the same time increasing the volume of its monopoly revenue. Department stores appear to frequently grow in size with the community and probably are examples of this type of firm. Banks are another illustration; meat markets, on the other hand, increase in number rather than in the size of the individual firm.

A further beneficiary which is probably quite important is the management of the mutual savings banks. The officers have a direct interest in the growth of the bank by which they are employed because the larger the institution becomes, the more opportunity there is for salary increases and promotion in rank. The management is, accordingly, materially interested in increasing the size of the state's population even at the expense of the depositors' welfare.

The interests which benefit from financial protectionism are politically powerful. The depositors, unfortunately, are not organized and the reduction in their interest income is so small for each individual that it arouses no criticism. This is another illustration of concentrated benefits and larger but widely dispersed losses.

